MODEL TCA-1 THERMOCOUPLE JUNCTION BLOCK (P/N 46082700)

This device is used to attach spill switches to a 30 millivolt water heater. It is designed to be used with models GSK SERIES spill switches, TSP SERIES spill switch or SSK SERIES spill switch kits for connecting flue gas sensing spillage switches to 30 millivolt gas valves.

Required accessories
2- GSK series spill switches
6 ft. of 12 ga. two (2) wire stranded (preferably) conductor.
or
1- TSP series spill switch
6 ft. of 12 ga. two (2) wire stranded (preferably) conductor.
or
1- SSK series spill switch kit
Includes two (2) spill switches and 12 ga wire.

INSTALLATION:

CAUTION: SHUT OFF GAS SUPPLY BEFORE WORKING ON APPLIANCE.

1. Remove thermocouple from gas control valve (see figure 1).

2. Thread the junction block into the thermocouple port and thread the thermocouple into the bottom of the junction block. DO NOT over tighten the junction block. Hand tread the block into thermocouple port then tighten lightly with a wrench.

3. Mount the two (2) spill switches onto the draft hood so the switches do not contact any metal (see figure 2).

4.Connect the one terminal of each switch with 12 ga wire and then connect it to the thermocouple junction block. Next,connect the two remaining terminals together using a short length of 12 ga wire(see figure 3).

5. Route and secure the wires to the water heater enclosure with acceptable hold down tabs, keeping the wires away from any hot surface area.

SYSTEM CHECK-OUT PROCEDURE FOR GAS SPILLAGE SWITCH CONTROL.

1. Shut off gas supply to appliance(s).

2. Block the flue pipe above the draft hood or draft diverter.

3. Re-establish gas supply to appliance and re-light pilot.

4. Adjust thermostat to call for heat.

5. Flue gases should be emitting from draft diverter or draft hood. Note the location of the most flue gas spillage. Allow approximately 2 minutes for the system to back up and the gas burner to shut down. Wait

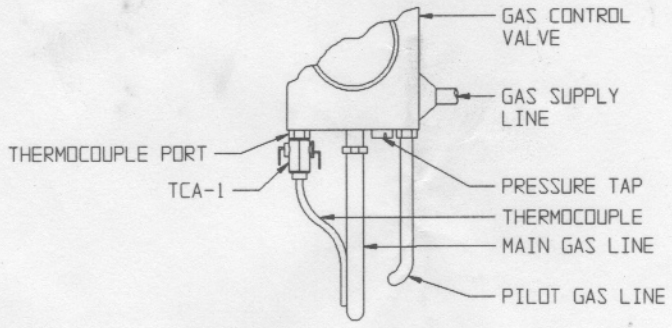

Figure 1

2 to 3 minutes, reset switches, and re-light pilot. If the spillage switch does not trip within the 2 minute period, relocate the switch onto the area where the observed highest spillage occurred. Then perform this test again.

CAUTION: If for any reason the system has shut down during normal operation, the cause of the system failure should be investigated and corrected before resetting the safety switch and relighting the pilot.

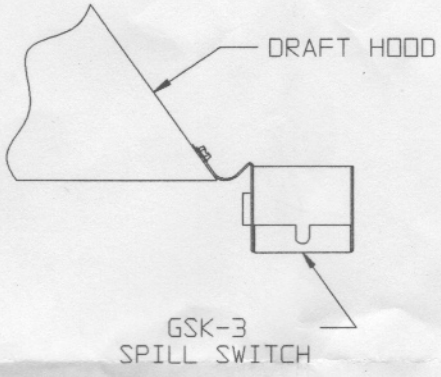

Figure 2

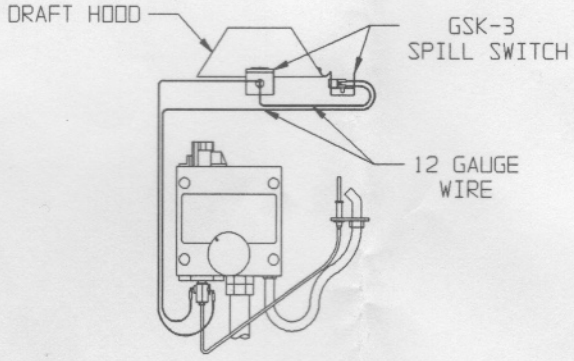

Figure 3

FORM P/N 46244900